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10/810,787	03/26/2004	Alan C. Wendt	920095-95446	9635

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EXAMINER

PHILLIPS, FORREST M

ART UNIT PAPER NUMBER

2837

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/810,787

Applicant(s)

WENDT ET AL.

Examiner

Forrest M. Phillips

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Objections

Claims 1-46 are objected to because of the following informalities: All independent claims currently have language equivalent to "adapted to be" or able to be supported from a structure. As this is not a positive limitation but merely requires the panel to be able to be supported, examiner has treated claims as reading that the panel is supported, as any panel would be capable of being supported by a structure. Appropriate correction is required.

Claim 25 is objected to for "the panel comprising" examiner considers "the system comprising" to be a more accurate description of applicants intent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashton (US4706422) in view of Lynch (US2003/0046889) and Saylor (4084367).

With respect to claim 1 Ashton discloses a durable sound absorbing panel having surface burning resistance qualities for use in a structure having an environmental area, the panel comprising:

A panel substrate (8 in figure 2) having a first face and a second face (the outside and inside respectively), the second face opposing the first face and substantially concealed from the environmental area when installed; the panel substrate including a plurality of apertures (2 in figure 2) spread across the surface of the panel substrate to extend from the first face to the second face (column 2 lines 14-15); a fibrous material (26 in figure 3) attached to the first face of the panel substrate and applied such that the apertures are covered by the fibrous material; the fibrous material is positioned such that nearly complete exposure of the material occurs when installed, permitting viewing from the environmental area of the structure (as is evidenced by the figures).

Ashton does not disclose wherein the panel is supportable from a structure and is silent about the material's nature with respect to weaving.

Lynch discloses wherein a panel having a non-woven fibrous layer (24 in figure 2) and a perforate panel substrate is supported from a structure (refer to figure 1).

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Lynch to suspend such a panel from a structure with the panel of Ashton.

Saylor discloses a panel having a non-woven material (141 in figure 8) as the exterior viewable surface covering a sound-absorbing panel.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Saylor to use a non-woven material to cover the panel of Ashton in view of Lynch and have said layer be visible.

The motivation for doing so would have been to impart a degree of decorative appearance to the panel of Ashton in view of Lynch. Furthermore it has been held to be within the general skill of a worker to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 426.

With respect to claim 2 Lynch further discloses wherein the non-woven fibrous layer is attached to a face of a panel substrate using an adhesive (paragraph 25). It would have been obvious to one of ordinary skill in the art to apply this teaching to the panel of Ashton in view of Saylor in order to attach the non-woven fibrous layer in such a way as it would be substantially visible.

With respect to claim 3 Saylor further discloses wherein the apertures include a first group having a first size (138 in figure 8) and a second group having a second size (138a in figure 8).

With respect to claim 4 Ashton in view of Lynch and Saylor discloses the invention as claimed except wherein the apertures of the first group and the second group of apertures have sizes ranging from about 0.039 to about 0.117 inches. It would have been obvious to one of ordinary skill in the art to select such a size of aperture since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimal or working ranges involves only routine skill in the art. In re Aller 105 USPQ 233.

With respect to claims 5 and 6 Ashton in view of Lynch and Saylor does not disclose any specific airflow resistance rate through the entire panel nor the non-woven fibrous material. It would have been obvious to one of ordinary skill in the art to select an airflow resistance rate within the range of 900 to 1050 mks rayl for the entire panel and 600 mks rayl for the non-woven material. Since it has been held that where the general conditions of a claim are disclosed in the prior art discovering the optimal or working ranges involves only routine skill in the art. In re Aller 105 USPQ 233.

With respect to claim 7 Lynch further discloses wherein the panel includes at least two side flanges (66 and 44 in figure 2 unnumbered on opposite side of panel) each having a flange for connection to a suspended ceiling grid, wherein the suspended ceiling grid includes a plurality of grid members interconnected to form panel openings, the grid members suspended from the structure with hangers (refer to figure 2) (abstract).

With respect to claim 8 Saylor discloses the use of multiple groups of apertures having different sizes, and goes on to specify at least two different sizes (column 4 line 27). At the time of the invention it would have been obvious to one of ordinary skill in the art to have as many groups greater than or equal to two of differing sized apertures in view of the teachings of Saylor to use different sizes of apertures.

The motivation for doing so would have been to attenuate an even greater number of frequencies of sound.

Claims 9- are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashton in view of Saylor and Lynch (US2003/0046889).

With respect to claim 9

Ashton discloses an interior panel for use in a building structure comprising:

A semi-rigid panel substrate (8 in figure 2) adapted to be supported by its edges with minimal panel substrate flex, the panel substrate having a first face and a second face (the exterior face and interior face respectively) opposing the first face, the second face being substantially concealed when the panel is installed within the building structure; a first set of apertures (2 in figure 2) in the panel substrate having a first size; a fibrous material (26 in figure 3) attached to the first face of the panel substrate covering the first set of apertures, the fibrous material being substantially visible when installed in the building structure.

Ashton does not disclose a finishing panel and is silent about the woven or non-woven nature of the fibrous material.

Lynch discloses an interior finishing panel for use in a building structure comprising a semi rigid panel substrate adapted to be supported by its edges with minimal panel substrate flex, the panel substrate having a first face and a second face opposing the first face, and a first set of apertures in the panel substrate and a non-woven fibrous material (24 in figure2) (paragraph 25)(claim10).

Lynch does not disclose wherein the non-woven material is substantially visible when the panel is installed.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Lynch to use a panel having a semi-rigid panel substrate and a non-woven fibrous layer as a ceiling panel, an interior finish panel, with the panel structure of Ashton, to provide a ceiling system with the acoustic attenuation properties of Ashton's panel.

Ashton in view of Lynch does not disclose wherein a non-woven fibrous layer is substantially visible when the panel is installed.

Saylor discloses wherein the non-woven fibrous layer is positioned such that it is substantially visible when the panel is installed.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Saylor to have the non-woven layer substantially visible when the panel is installed to impart a degree of decorative appearance to the panel (column 6 lines 52-56 of Saylor).

With respect to claim 10 Lynch discloses wherein the non-woven fibrous layer is attached to a face of a panel substrate using an adhesive (paragraph 25). It would have been obvious to one of ordinary skill in the art to apply this teaching to the panel of Ashton in view of Saylor in order to attach the non-woven fibrous layer in such a way as it would be substantially visible.

With respect to claim 11 as in above rejection of claim 4 it would have been obvious to one of ordinary skill in the art to select such a size of aperture.

With respect to claims 12 and 13 as in above rejection of claims 5 and 6 it would have been obvious to one of ordinary skill in the art to select such an airflow resistance for the panel and the non-woven material respectively.

With respect to claim 14 Lynch further discloses wherein the panel includes at least two side flanges (66 and 44 in figure 2 unnumbered on opposite side of panel) each having a flange for connection to a suspended ceiling grid, wherein the suspended ceiling grid includes a plurality of grid members interconnected to form panel openings, the grid members suspended from the structure with hangers (refer to figure 2) (abstract).

With respect to claim 15 Saylor discloses a second set of apertures formed on the panel having a second size (138a in figure 8) in addition to a first set of apertures (138 in figure 8) having a first size.

With respect to claim 16 Saylor discloses the use of multiple groups of apertures having different sizes, and goes on to specify at least two different sizes (column 4 line 27). At the time of the invention it would have been obvious to one of ordinary skill in the art to have as many groups greater than or equal to two of differing sized apertures in view of the teachings of Saylor to use different sizes of apertures.

The motivation for doing so would have been to attenuate an even greater number of frequencies of sound.

With respect to claims 17-24 as in above rejection of claims 9-16 Ashton in view of Lynch and Saylor discloses the invention as claimed as the above mentioned first and second faces correspond to an interior face and an exterior face.

With respect to claim 25 Ashton discloses a durable sound absorbing system having fire resistive qualities (column 3 lines 46-55) for use in a structure having an environmental area, the panel comprising:

A panel substrate (8 in figure 2) having a first and second face (the outside and inside faces respectively) the second face opposing the first face and substantially concealed from the environmental area when installed; the panel substrate including a plurality of apertures (2 in figure 2) spread across the surface of the panel substrate to extend from the first face to the second face; a fibrous material attached to the first face of the panel substrate and applied such that the apertures are covered by the fibrous material (26 in figure 3); the fibrous material is positioned such that nearly complete exposure of the material occurs when installed, permitting viewing from the environmental area of the structure.

Ashton does not disclose the panel is a ceiling panel, nor a support grid system, and is silent as to the nature of the fibrous material with respect to weaving.

Lynch discloses a durable ceiling sound absorbing ceiling system for use in a structure having an environmental area, the panel comprising:

A plurality of grid members (12 in figure 2) (see also figure 1) inter connected to form a grid, the grid members adapted to be supported from the structure; Examiner also considers the grid limitations to be well known in the art,

A panel substrate (22 in figure 2) having a first and a second face, the second face opposing the first face (outside and inside faces respectively of 22) and substantially concealed from the environmental area when installed; the panel substrate

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supportable from the grid, the panel substrate including a plurality of apertures (38 best shown in figure 4) spread across the surface of the panel substrate to extend from the first face to the second face;

A non-woven fibrous material (24 in figure 2) attached to a face of a panel substrate and applied such that apertures are covered by the non-woven fibrous material

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Lynch to use a panel having a perforate panel substrate and a non-woven layer as a ceiling panel suspended from a grid structure to provide the acoustic absorption qualities of the Ashton panel to a ceiling structure.

Ashton in view of Lynch does not disclose wherein the non-woven fibrous material is positioned such that nearly complete exposure of the material occurs when installed, permitting viewing from the environmental area of the structure.

Saylor discloses a sound absorbing panel having a panel substrate with a plurality of apertures(138 in figure 8) spread across the surface of the panel substrate to extend from the first face to the second face of the substrate and a non-woven fibrous material (141 in figure 8) applied such that nearly complete exposure of the material occurs when installed permitting viewing from the environmental area of the structure.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Saylor to have the non-woven fibrous material exposed to the environmental side of a panel to add a degree of decorativeness with the panel of Ashton in view of Lynch.

With respect to claim 26 Lynch further discloses wherein the non-woven fibrous layer is attached to a face of a panel substrate using an adhesive (paragraph 25). It would have been obvious to one of ordinary skill in the art to apply this teaching to the panel of Ashton in view of Saylor in order to attach the non-woven fibrous layer in such a way as it would be substantially visible.

With respect to claim 27 Saylor further discloses wherein the apertures include a first group (138 in figure 8) having a first size and a second group (138a in figure 8) having a second size.

With respect to claim 28 Ashton in view of Lynch and Saylor discloses the invention as claimed except wherein the apertures of the first group and the second group of apertures have sizes ranging from about 0.039 to about 0.117 inches. It would have been obvious to one of ordinary skill in the art to select such a size of aperture since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimal or working ranges involves only routine skill in the art. In re Aller 105 USPQ 233.

With respect to claims 29 and 30 Ashton in view of Lynch and Saylor does not disclose any specific airflow resistance rate through the entire panel nor the non-woven fibrous material. It would have been obvious to one of ordinary skill in the art to select an airflow resistance rate within the range of 900 to 1050 mks rayl for the entire panel and 600 mks rayl for the non-woven material. Since it has been held that where the general conditions of a claim are disclosed in the prior art discovering the optimal or working ranges involves only routine skill in the art. In re Aller 105 USPQ 233.

With respect to claim 31 Lynch further discloses wherein the panel includes at least two side flanges (66 and 44 in figure 2 unnumbered on opposite side of panel) each having a flange for connection to a suspended ceiling grid, wherein the suspended ceiling grid includes a plurality of grid members interconnected to form panel openings, the grid members suspended from the structure with hangers (refer to figure 2) (abstract).

With respect to claim 32 Saylor discloses the use of multiple groups of apertures having different sizes, and goes on to specify at least two different sizes (column 4 line 27). At the time of the invention it would have been obvious to one of ordinary skill in the art to have as many groups greater than or equal to two of differing sized apertures in view of the teachings of Saylor to use different sizes of apertures.

The motivation for doing so would have been to attenuate an even greater number of frequencies of sound.

With respect to claim 33 Ashton discloses wherein the second face includes a layer of porous insulation material (7 in figure 3).

With respect to claim 34 Ashton, Lynch and Saylor all discloses wherein the apertures are selected from a group consisting of circular, square, triangular, rectangular and oval.

With respect to claim 35-46 Lynch discloses (paragraph 23) wherein the panel substrate is self supporting and made from metal.

Response to Arguments

Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hermanson (US5832685); Payne et al (US 5129202); Price (US2924856); Fletterick et al. (US6374564); Morelissen et al. (20050166506); Noxon (US4548292); Huebsch et al (US 2004/016184)


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Forrest M. Phillips whose telephone number is 5712729020. The examiner can normally be reached on Monday through Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 5712721988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FP


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SUPERVISORY PATENT EXAMINER